

MINUTES

Subject: Minutes for National Oil and Gas Committee Conference Call on Thursday, July 11, 2019

Meeting time: July 11, 2019, 2:00-3:30 PM Eastern Time

Ex. 6 Personal Privacy (PP)

[NOTE: Regional call-in numbers listed at end of the agenda]

Agenda

2:00 - 2:05 Welcome and roll call – Michael Ege (TCEQ)

States:

R1:

R2:

R3: PA, VA

R4: AL, NC, TN

R5: OH

R6: NM, OK, TX

R7:

R8: CO, MT, UT, WY

R9:

R10: AK

RPOs:

Julie McDill, MARAMA

Tom Moore, WRAP/WESTAR

EPA:

Caroline Farkas (OAQPS)

Eben Thoma (ORD)

Cindy Beeler (R8)

Matthew Witosky

Contractors:

Mike Pring and Regi Oommen (ERG)

Amnon Bar-Ilan and John Grant (Ramboll)

Others:

Mark Gibbs (Aether-UK)

Shawn McClure (Colorado State – CIRA)

David Lyon (EDF)

2:05 - 2:10 Review and approval of last conference call meeting notes – Michael Ege (TCEQ)

The notes for the June call were drafted, but Michael Ege is waiting for comments back from the various speakers. The notes will be sent out before the next call.

2:10 – 2:30 EPA International Emissions Inventory Conference updates – Caroline Farkas (EPA)

- Conference will be held July 29th – August 2nd in Dallas, Texas
- Oil and gas training on Monday (July 29th) – Regi Oomen (ERG)
- Overview of oil and gas presentations on Wednesday morning (July 31st) – Tom Moore (WRAP)
- Oil and gas field trip Wednesday afternoon (July 31st) – Michael Vince (CENSARA)

Caroline Farkas provided the group with information about the upcoming EPA conference. This included a fun night at the ballpark, with tickets to the Texas Rangers' game on Wednesday July 31st available for \$20 each.

Regi Oomen indicated that 62 people had signed up for the Oil and Gas training on Monday July 29th, with additional spots still available if people were interested in attending. And Tom Moore highlighted a roundtable discussion taking place on Wednesday July 31st.

2:30 – 2:40 Oil & Gas Subcommittee: 2016 Emissions Modeling Platform Update – Tom Richardson (OKDEQ)

- Next call will be Monday July 15th
- WRAP survey results will be discussed on the July 15th call – Tom Moore (WRAP)
- Agendas and minutes for calls can be found at: [[HYPERLINK "http://views.cira.colostate.edu/wiki/wiki/9180" \]](http://views.cira.colostate.edu/wiki/wiki/9180)

Tom Richardson provided an update of the information that would be covered in the upcoming call on July 15th. He indicated that the default projection method would use the 2019 AEO base case factors. Tom also noted that Alaska had provided comments for their state. There is a form from Zac Aldelman that states can use to submit comments. States should provide documentation to support any updates they want to be made to their data. Finally, for exploration sources, 4 years worth of data (from 2014 through 2017) will be averaged and used for the future years.

Tom Moore provided an overview of the survey results that would be covered in the upcoming call. He indicated that they had received good survey results for North Dakota, Montana, and New Mexico, with operators providing new data. For NO_x, the survey data leads to big increases in compressor engine emissions and big reductions in drilling rig emissions. For VOC, the survey data leads to big reductions in storage tank emissions. Cindy Beeler noted that the

decrease in drilling rig emissions could be due in part to less time being needed to complete drilling wells now compared to 2014.

2:40 – 3:00 Storage tank controls and capture efficiency in the EPA oil and gas tool – Mike Pring and Regi Oommen (ERG)

- Comparison of 2014 and 2017 production-weighted control factors
- Comparison of emissions using 90%, 80%, and 70% capture efficiency

Mike Pring went over a set of slides titled “2017 Tool – Tank Controls Capture Efficiency Sensitivity Analysis”. First, he went over the changes in emissions from 2014 to 2017 using the most recent version of the EPA oil and gas tool, which includes updates for 2017 based on 2017 GRGRP Subpart W data. This included a 48% decrease in VOC emissions from condensate storage tanks and a 54% decrease in VOC emissions from crude oil storage tanks nationwide. The decreases were due to an increase in the fraction of tanks with controls, with the default value for condensate tank controls increasing by 26% to 85% and the default value for crude oil tank controls increasing by 31% to 86% from 2014 to 2017. Basin-specific factors were developed for basins with Subpart W data available.

NSPS OOOO and OOOOa require a 95% control on affected storage tanks. However, EPA issued a Storage Vessel Compliance Alert in 2015, since EPA and state inspectors have observed emissions from storage vessels. Inadequately designed, sized, operated, and/or maintained vapor control systems may not effectively capture and control emissions. Based on these issues, we are looking to see how we can adjust the EPA oil and gas tool.

Mike Pring indicated that for both crude oil and condensate storage tanks, the EPA tool currently uses a 100% capture efficiency nation-wide. For crude oil storage tanks, most of the country uses a 98% control efficiency default, while three WRAP states use a 90% control efficiency. For condensate storage tanks, most of the country uses a 80% control efficiency default (which is actually a combined capture/control factor), while three WRAP states use a 90% control efficiency and several other states (CenSARA, other WRAP states, West Virginia, and New Mexico) use a 98% control efficiency.

To conduct a capture efficiency sensitivity analysis, ERG kept the fraction of tanks with controls and the control efficiencies static, while varying the capture efficiency (from the base case to 90% to 80% to 70%). A graph compared the results nation-wide for the four different cases compared to the 2014 emissions.

Julie McDill asked about the EPA compliance bulletin, and whether there were any ideas on the level of capture efficiency being found in the field. Cindy Beeler indicated that initially for Colorado, about 60% of the vapor capture systems were not working correctly, although later that number was lower. For North Dakota the number was higher, while for the Uinta Basin it was lower (ranging from about 25% to 65%). The Utah study had about 35% not working correctly, while for flyovers the number was 31%, and 47% for EPA inspections.

Tom Richardson noted that in the Utah study, higher producing sites were more likely to have emission plumes seen with IR cameras, as well as at newer sites, and for oil tanks.

Julie McDill asked if anyone had an idea of what capture efficiency should be used in the EPA tool. Tom Moore and Mark Gibbs noted that we have just begun to think about this issue, and there are a lot of things to think about. Julie McDill asked if everyone agreed that the default of 100% capture efficiency is not correct, and no one disagreed. Tom Richardson suggested starting with a conservative default of 70% capture efficiency, and allowing states to update that to a higher number if they had better data.

Eben Thoma thought that IR leaks should be broken into different categories, because leaks are being detected from more than just vapor capture systems not working correctly. Tom Richardson asked if there had been any observations of tanks while they were being unloaded.

Julie McDill talked about what the next steps should be. The capture efficiency should be changed from 100% to some other default value, and that states should be able to update to a higher capture efficiency if they had good data to support it. Julie also thought it might be helpful to talk about the compliance alert again on a future call for those states who had missed the discussion on the previous call.

Michael Ege indicated that the steering committee would discuss the issue further and work on drafting a white paper with information about the issue as well as a suggested default capture efficiency for the EPA tool.

3:00 – 3:15 Information & Action Items – Michael Ege (TCEQ)

- Summary of latest content added to the Oil & Gas Emissions Information Repository – Shawn McClure (CIRA): [[HYPERLINK "http://vibe.cira.colostate.edu/ogec/home.htm"](http://vibe.cira.colostate.edu/ogec/home.htm)]
- Action Items

Next call: Thursday, September 12, 2019, 2:00-3:30 PM Eastern Time;
same call in number and confirmation number – Michael Ege (TCEQ)

Please let me know if you have questions or additional topics for this call (or future calls).

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